

**LISTING OF CLAIMS:**

This listing of claims provided below will replace all prior versions and listings of claims in the application.

1. (Currently amended) A method for treating a host infected with a *togavirus* or a *coronavirus* ~~or a herpes-virus~~, comprising administering an anti-viral effective amount of a compound, or a pharmaceutically acceptable salt or prodrug thereof, having a structure of Formula I:



wherein:  $R_1$  is  $\text{—NHC(O)Y}$ , where Y is  $C_1\text{--}C_{22}$  alkyl,  $C_2\text{--}C_{22}$  alkenyl, or  $C_2\text{--}C_{22}$  alkynyl;

$R_2$  is  $\text{—OX}$ , where X is  $C_1\text{--}C_{22}$  alkyl,  $C_2\text{--}C_{22}$  alkenyl,  $C_2\text{--}C_{22}$  alkynyl; and

$R_3$  is phosphocholine;

optionally with a pharmaceutically acceptable carrier or diluent.

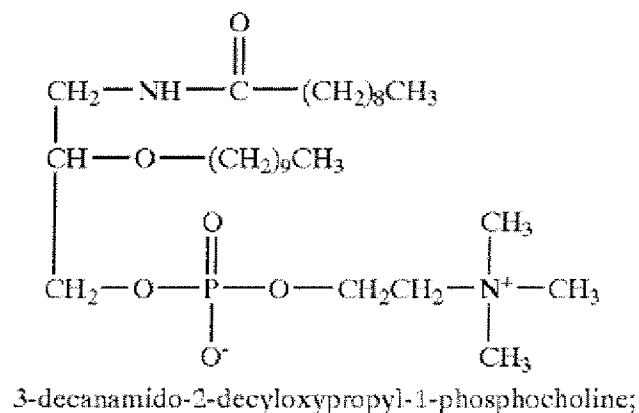
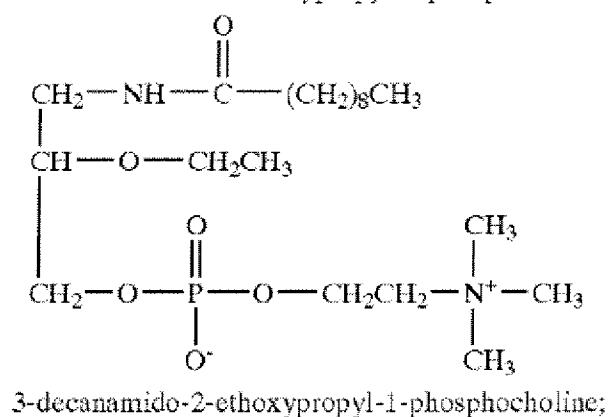
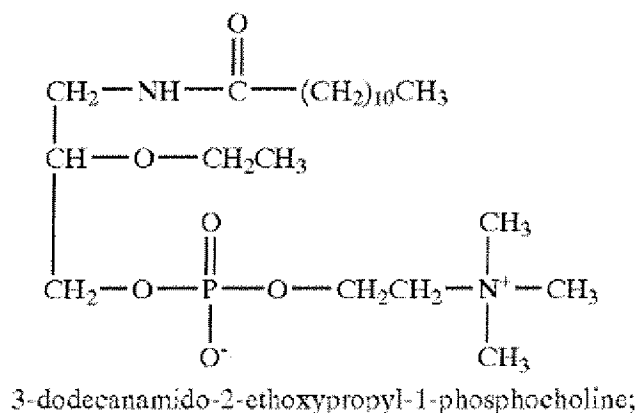
2. (Withdrawn) The method of claim 1, wherein  
Y is  $C_1\text{--}C_{14}$  alkyl,  $C_2\text{--}C_{14}$  alkenyl, or  $C_2\text{--}C_{14}$  alkynyl; and  
X is  $C_1\text{--}C_{14}$  alkyl,  $C_2\text{--}C_{14}$  alkenyl, or  $C_2\text{--}C_{14}$  alkynyl.

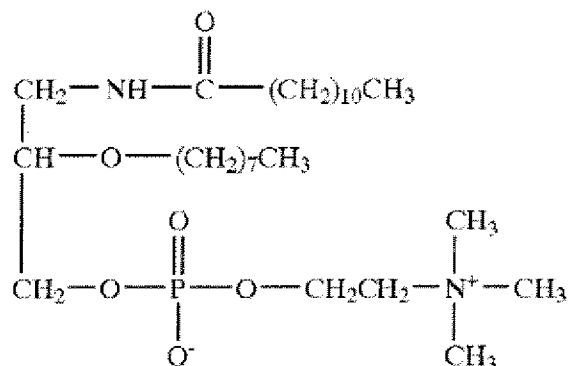
3. (Withdrawn) The method of claim 1 wherein:  
Y is  $\text{—C}_{11}\text{H}_{23}$ ,  $\text{—C}_{10}\text{H}_{21}$  or  $\text{—C}_9\text{H}_{19}$ ; and  
X is  $\text{—CH}_2\text{CH}_3$ ,  $\text{—(CH}_2)_2\text{CH}_3$ ,  $\text{—(CH}_2)_3\text{CH}_3$ , or  $\text{—CH}_{10}\text{CH}_{21}$ .

4. (Withdrawn) The method of claim 1, wherein Y is  $\text{—C}_{11}\text{H}_{23}$  and X is  $C_1\text{--}C_5$  alkyl.

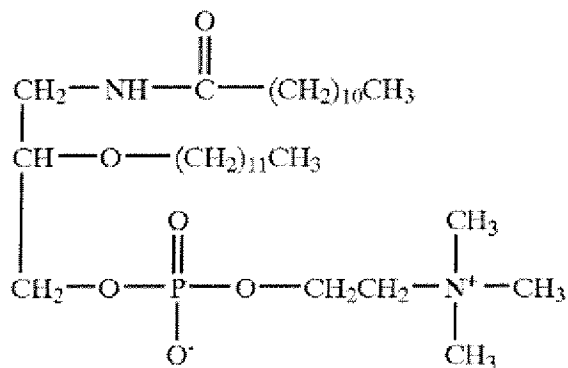
5. (Withdrawn) The method of claim 1, wherein Y is  $\text{—C}_9\text{H}_{19}$  and X is  $\text{C}_9\text{—C}_{11}$  alkyl.

6. (Withdrawn) The method of claim 1, wherein the compound is:

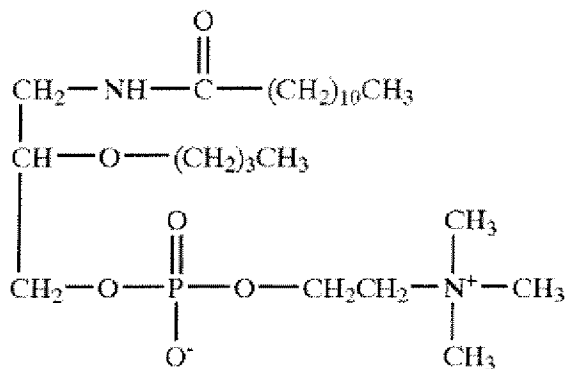




3-dodecanamido-2-octyloxypropyl-1-phosphocholine;



3-dodecanamido-2-dodecyloxy-1-phosphocholine; or



3-dodecanamido-2-butyloxypropyl-1-phosphocholine;

or a combination thereof.

7. (Previously presented) The method of claim 1, wherein the virus is a *coronavirus*.

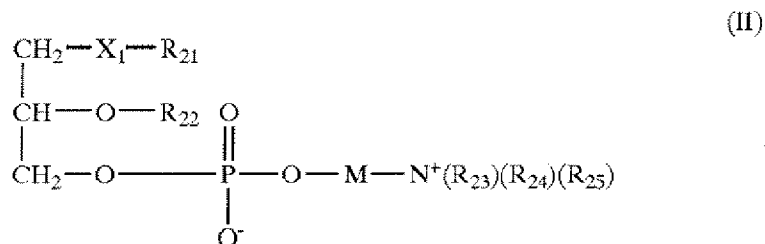
8. (Previously presented) The method of claim 7, wherein the *coronavirus* is SARS-CoV.

Claims 9-11. (Cancelled).

12. (Previously presented) The method of claim 1, wherein the host is a mammal.

13. (Previously presented) The method of claim 1, wherein the host is a human.

14. (Withdrawn) A method for treating a host infected with a *togavirus*, herpes virus or *coronavirus*, comprising administering an anti-viral effective amount of a compound, or a pharmaceutically acceptable salt or prodrug thereof, having a structure of Formula II:



wherein:

M is C<sub>2</sub>-C<sub>4</sub> alkyl;

X<sub>1</sub> is —S—, —O—, —NH—, or —NHC(O)—;

R<sub>21</sub> is —C<sub>1</sub>-C<sub>20</sub> straight chain alkyl, —C<sub>2</sub>-C<sub>20</sub> straight chain alkylene containing not more than four double bonds, or aryl;

R<sub>22</sub> is —C<sub>1</sub>-C<sub>20</sub> straight chain alkyl, —C<sub>2</sub>-C<sub>20</sub> straight chain alkylene containing not more than four double bonds, or aryl; and

R<sub>23</sub>, R<sub>24</sub>, and R<sub>25</sub> are each independently either hydrogen, methyl, ethyl, propyl, or isopropyl;

optionally with a pharmaceutically acceptable carrier or diluent.

15. (Withdrawn) The method of claim 14 wherein:

M is —CH<sub>2</sub>CH<sub>2</sub>—;

X<sub>1</sub> is —S—, —O—, —NH—, or —NHC(O)—;

R<sub>21</sub> is C<sub>1</sub>-C<sub>16</sub> straight chain alkyl, or —C<sub>2</sub>-C<sub>16</sub> straight chain alkylene containing not more than one double bond;

R<sub>22</sub> is C<sub>1</sub>-C<sub>16</sub> straight chain alkyl, or —C<sub>2</sub>-C<sub>16</sub> straight chain alkylene containing not more than one double bond; and

R<sub>23</sub>, R<sub>24</sub>, and R<sub>25</sub> are each independently hydrogen or methyl.

16. (Withdrawn) The method of claim 14 wherein:

R<sub>22</sub> is C<sub>1</sub>-C<sub>5</sub> straight chain alkyl, or —C<sub>2</sub>-C<sub>5</sub> straight chain alkylene containing not more than one double bond.

17. (Withdrawn) The method of claim 15, wherein R<sub>21</sub> is —C<sub>9</sub>-C<sub>12</sub> alkyl, and R<sub>22</sub> is —C<sub>1</sub>-C<sub>12</sub> alkyl.

18. (Withdrawn) The method of claim 15, wherein R<sub>21</sub> is —C<sub>9</sub>-C<sub>12</sub> alkyl, and R<sub>22</sub> is —C<sub>1</sub>-C<sub>5</sub> alkyl.

19. (Withdrawn) The method of claim 15, wherein R<sub>21</sub> is —C<sub>9</sub>-C<sub>12</sub> alkyl, and R<sub>22</sub> is —C<sub>8</sub>-C<sub>12</sub> alkyl.

20. (Withdrawn) The method of claim 14, wherein the virus is a *coronavirus*.

21. (Withdrawn) The method of claim 20, wherein the *coronavirus* is SARS-CoV.

22. (Withdrawn) The method of claim 14, wherein the virus is a herpes virus.

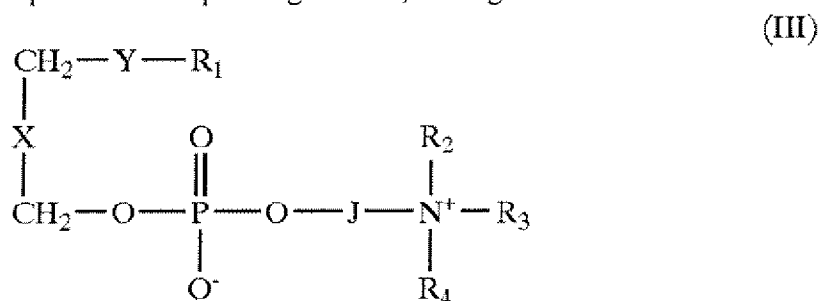
23. (Withdrawn) The method of claim 22, wherein the herpes virus is varicella zoster virus.

24. (Withdrawn) The method of claim 22, wherein the herpes virus is *cytomegalovirus*.

25. (Withdrawn) The method of claim 14, wherein the host is a mammal.

26. (Withdrawn) The method of claim 14, wherein the host is a human.

27. (Withdrawn) A method for treating a host infected with a *togavirus*, herpes virus or *coronavirus* comprising administering an anti-viral effective amount of a compound, or a pharmaceutically acceptable salt or prodrug thereof, having a structure of Formula III:



wherein:

Y is —S—, —O—, —NH—, —N(CH<sub>3</sub>)—, —NHC(O)—, or —N(CH<sub>3</sub>)C(O)—;

R<sub>1</sub> is C<sub>1</sub>-C<sub>18</sub> alkyl, C<sub>2</sub>-C<sub>18</sub> alkenyl, C<sub>2</sub>-C<sub>18</sub> alkynyl or aryl;

X is a covalent bond or methylene that is optionally substituted with hydroxyl, C<sub>1</sub>-C<sub>20</sub> alkyl, —O—(C<sub>1</sub>-C<sub>20</sub> alkyl), —S—(C<sub>1</sub>-C<sub>20</sub> alkyl), —(C(O)N(C<sub>1</sub>-C<sub>20</sub> alkyl), C<sub>2</sub>-C<sub>20</sub> alkenyl, —O—(C<sub>2</sub>-C<sub>20</sub> alkenyl), —S—(C<sub>2</sub>-C<sub>20</sub> alkenyl), —(C(O)N(C<sub>2</sub>-C<sub>20</sub> alkenyl), C<sub>2</sub>-C<sub>20</sub> alkynyl, —O—(C<sub>2</sub>-C<sub>20</sub> alkynyl), —S—(C<sub>2</sub>-C<sub>20</sub> alkynyl) or —(C(O)N(C<sub>2</sub>-C<sub>20</sub> alkynyl);

J is C<sub>1</sub>-C<sub>4</sub> alkyl optionally substituted one to three times with methyl or ethyl; and

R<sub>2</sub>, R<sub>3</sub>, and R<sup>4</sup> are H or C<sub>1</sub>-C<sub>3</sub> alkyl;

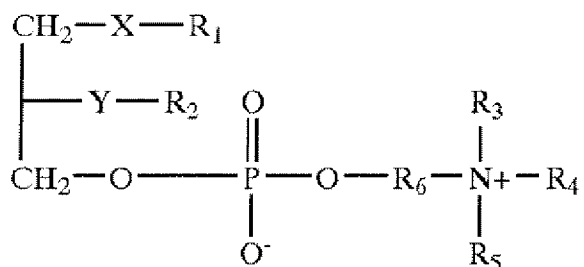
optionally with a pharmaceutically acceptable carrier or diluent.

28. (Withdrawn) The method of claim 27 wherein: Y is —NHC(O)—; R<sub>1</sub> is —C<sub>6</sub>-C<sub>18</sub> alkyl; X is —CH—O—(C<sub>1</sub>-C<sub>18</sub> alkyl) or —CH—O—(C<sub>1</sub>-C<sub>18</sub> alkenyl); J is —CH<sub>2</sub>CH<sub>2</sub>—; and R<sub>2</sub>, R<sub>3</sub>, and R<sub>4</sub> are each methyl.

29. (Withdrawn) The method of claim 28, wherein X is —CH—O—(C<sub>1</sub>-C<sub>5</sub> alkyl) or —CH—O—(C<sub>2</sub>-C<sub>5</sub> alkenyl).

30. (Withdrawn) The method of claim 28, wherein R<sub>1</sub> is —C<sub>8</sub>-C<sub>12</sub> alkyl and X is —CH—O—(C<sub>1</sub>-C<sub>5</sub> alkyl) or —CH—O—(C<sub>2</sub>-C<sub>5</sub> alkenyl).
31. (Withdrawn) The method of claim 28, wherein R<sub>1</sub> is —C<sub>8</sub>-C<sub>12</sub> alkyl and X is —CH—O—(C<sub>8</sub>-C<sub>12</sub> alkyl) or —CH—O—(C<sub>8</sub>-C<sub>12</sub> alkenyl).
32. (Withdrawn) The method of claim 27, wherein the virus is a *coronavirus*.
33. (Withdrawn) The method of claim 32, wherein the *coronavirus* is SARS-CoV.
34. (Withdrawn) The method of claim 27, wherein the virus is a herpes virus.
35. (Withdrawn) The method of claim 34, wherein the herpes virus is varicella zoster virus.
36. (Withdrawn) The method of claim 34, wherein the herpes virus is *cytomegalovirus*.
37. (Withdrawn) The method of claim 27, wherein the host is a mammal.
38. (Withdrawn) The method of claim 27, wherein the host is a human.
39. (Withdrawn) A method for treating a host infected with a *coronavirus*, herpes virus or *togavirus*, comprising administering an anti-viral effective amount of a compound, or a pharmaceutically acceptable salt or prodrug thereof, having a structure of Formula IV:

(IV)



wherein:

R<sub>1</sub> is a C<sub>6</sub>-C<sub>18</sub> alkyl, C<sub>6</sub>-C<sub>18</sub> alkenyl, or C<sub>6</sub>-C<sub>18</sub> alkynyl that is optionally substituted from 1 to 5 times with —OH, —COOH, oxo, amino, or aryl;

X is —NHC(O)—, —N(CH<sub>3</sub>)C(O)—, —C(O)NH—, —C(O)N(CH<sub>3</sub>)—, —S—, —S(O)—, —(SO<sub>2</sub>)—, —O—, —NH—, and —N(CH<sub>3</sub>)—;

R<sub>2</sub> is a C<sub>1</sub>-C<sub>14</sub> alkyl, C<sub>2</sub>-C<sub>14</sub> alkenyl, or C<sub>2</sub>-C<sub>14</sub> alkynyl that is optionally substituted from 1 to 5 times with —OH, —COOH, oxo, amino, or aryl;

Y is —NHC(O)—, —N(CH<sub>3</sub>)C(O)—, —C(O)NH—, —C(O)N(CH<sub>3</sub>)—, —S—, —S(O)—, —(SO<sub>2</sub>)—, —O—, —NH—, —N(CH<sub>3</sub>)—, or —OC(O)—;

R<sub>6</sub> is a C<sub>2</sub>-C<sub>6</sub> alkyl; C<sub>2</sub>-C<sub>6</sub> alkenyl, or C<sub>2</sub>-C<sub>6</sub> alkynyl; and

R<sub>3</sub>, R<sub>4</sub>, and R<sub>5</sub> are independently methyl or ethyl, or R<sub>3</sub> and R<sub>4</sub> together form an aliphatic or heterocyclic ring having five or six ring atoms and R<sub>5</sub> is methyl or ethyl; optionally with a pharmaceutically acceptable carrier or diluent.

40. (Withdrawn) The method of claim 39 wherein

R<sub>2</sub> is C<sub>1</sub>-C<sub>14</sub> alkyl, C<sub>2</sub>-C<sub>14</sub> alkenyl, or C<sub>2</sub>-C<sub>14</sub> alkynyl;

R<sup>6</sup> is CH<sub>2</sub>CH<sub>2</sub>; and R<sub>3</sub>, R<sub>4</sub>, and R<sub>5</sub> are each independently CH<sub>3</sub>.

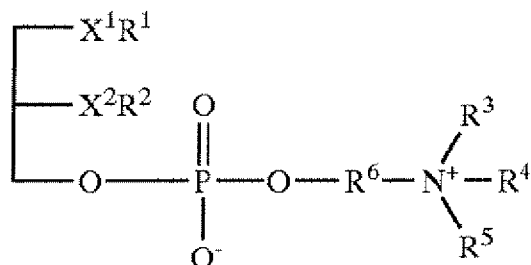
41. (Withdrawn) The method of claim 40, wherein R<sub>2</sub> is —C<sub>1</sub>-C<sub>5</sub> alkyl or —C<sub>1</sub>-C<sub>5</sub> alkenyl.

42. (Withdrawn) The method of claim 40, wherein R<sub>1</sub> is —C<sub>8</sub>-C<sub>12</sub> alkyl and R<sub>2</sub> is —C<sub>8</sub>-C<sub>12</sub> alkyl.



43. (Withdrawn) The method of claim 40, wherein R<sub>1</sub> is —C<sub>8</sub>-C<sub>12</sub> alkyl and R<sub>2</sub> is —C<sub>1</sub>-C<sub>5</sub> alkyl.
44. (Withdrawn) The method of claim 40, wherein R<sup>1</sup> is —C<sub>8</sub>-C<sub>12</sub> alkyl and R<sub>2</sub> is —C<sub>8</sub>-C<sub>12</sub> alkyl.
45. (Withdrawn) The method of claim 39, wherein: X is —NHC(O)—, —N(CH<sub>3</sub>)C(O)—, —C(O)NH—, or —C(O)N(CH<sub>3</sub>)—; and Y is —O—, —NH—, or —N(CH<sub>3</sub>)—.
46. (Withdrawn) The method of claim 39, wherein the virus is a *coronavirus*.
47. (Withdrawn) The method of claim 46, wherein the *coronavirus* is SARS-CoV.
48. (Withdrawn) The method of claim 39, wherein the virus is a herpes virus.
49. (Withdrawn) The method of claim 48, wherein the herpes virus is varicella zoster virus.
50. (Withdrawn) The method of claim 47, wherein the herpes virus is *cytomegalovirus*.
51. (Withdrawn) The method of claim 39, wherein the host is a mammal.
52. (Withdrawn) The method of claim 39, wherein the host is a human.
53. (Withdrawn) A method for treating a host infected with a *coronavirus*, herpes virus or *togavirus*, comprising administering an anti-viral effective amount of a compound, or a pharmaceutically acceptable salt or prodrug thereof, having a structure of Formula AA-1:

(AA-1)



wherein:

- $\text{X}^1$  is  $\text{—NHC(O)—}$ ;  
 $\text{X}^2$  is  $\text{—O—}$ ;  
 $\text{R}^1$  is  $\text{—C}_1\text{—C}_{22}$  alkyl;  
 $\text{R}^2$  is  $\text{—C}_1\text{—C}_{22}$  alkyl;  
 $\text{R}^6$  is  $\text{—CH}_2\text{CH}_2\text{—}$ ; and  
 $\text{R}^3$ ,  $\text{R}^4$  and  $\text{R}^5$  are methyl.

54. (Withdrawn) The method of claim 53, wherein:

$\text{R}^1$  is  $\text{—CH}_3$ ,  $\text{—CH}_2\text{CH}_3$ ,  $\text{—CH}_2\text{CH}_2\text{CH}_3$ ,  $\text{—CH}_2\text{CH}_2\text{CH}_2\text{CH}_3$ ,  $\text{—CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3$ ,  
 $\text{—(CH}_2)_5\text{CH}_3$ ,  $\text{—(CH}_2)_6\text{CH}_3$ ,  $\text{—(CH}_2)_7\text{CH}_3$ ,  $\text{—(CH}_2)_8\text{CH}_3$ ,  $\text{—(CH}_2)_9\text{CH}_3$ ,  $\text{—(CH}_2)_{10}\text{CH}_3$ ,  
 $\text{—(CH}_2)_{11}\text{CH}_3$ ,  $\text{—(CH}_2)_{12}\text{CH}_3$  or  $\text{—(CH}_2)_{13}\text{CH}_3$ ; and  $\text{R}^2$  is  $\text{—CH}_3$ ,  $\text{—CH}_2\text{CH}_3$ ,  
 $\text{—CH}_2\text{CH}_2\text{CH}_2\text{CH}_3$ ,  $\text{—CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3$ ,  $\text{—(CH}_2)_5\text{CH}_3$ ,  $\text{—(CH}_2)_6\text{CH}_3$ ,  $\text{—(CH}_2)_7\text{CH}_3$ ,  
 $\text{—(CH}_2)_8\text{CH}_3$ ,  $\text{—(CH}_2)_9\text{CH}_3$ ,  $\text{—(CH}_2)_{10}\text{CH}_3$ ,  $\text{—(CH}_2)_{11}\text{CH}_3$ ,  $\text{—(CH}_2)_{12}\text{CH}_3$  or  $\text{—(CH}_2)_{13}\text{CH}_3$ .

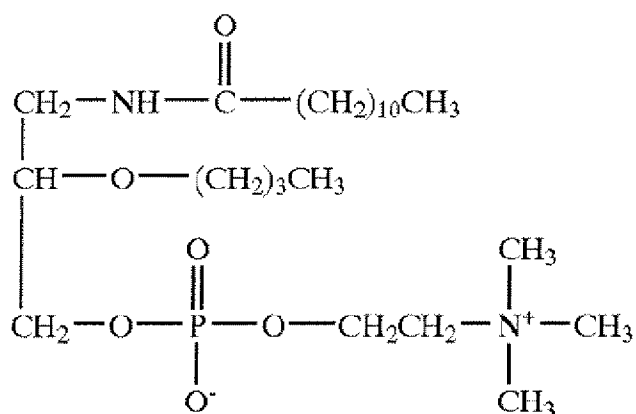
55. (Withdrawn) The method of claim 53, wherein the host is infected with a *coronavirus*.

56. (Withdrawn) The method of claim 55, wherein the *coronavirus* is SARS-CoV.

57. (Withdrawn) The method of claim 56, wherein:

$\text{R}^1$  is  $\text{—(CH}_2)_9\text{CH}_3$ ,  $\text{—(CH}_2)_{10}\text{CH}_3$ , or  $\text{—(CH}_2)_{11}\text{CH}_3$ ; and  
 $\text{R}^2$  is  $\text{—CH}_2\text{CH}_2\text{CH}_3$ ,  $\text{—CH}_2\text{CH}_2\text{CH}_2\text{CH}_3$ , or  $\text{—CH}_2(\text{CH}_2)_3\text{CH}_3$ .

58. (Withdrawn) The method of claim 56, wherein the compound is:

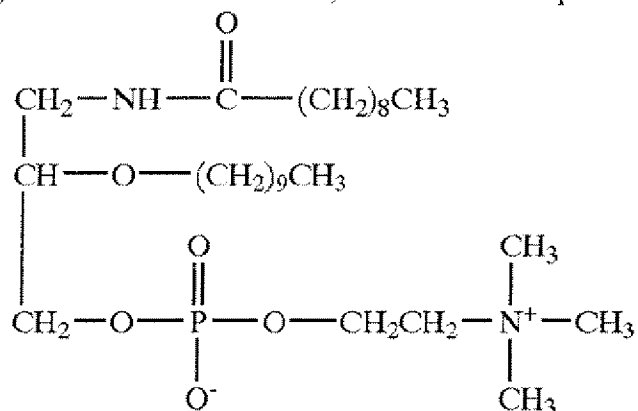


59. (Withdrawn) The method of claim 53, wherein the host is infected with a herpes virus.

60. (Withdrawn) The method of claim 59, wherein the herpes virus is varicella zoster virus.

61. (Withdrawn) The method of claim 60, wherein: R<sup>1</sup> is —(CH<sub>2</sub>)<sub>7</sub>CH<sub>3</sub>-, —(CH<sub>2</sub>)<sub>8</sub>CH<sub>3</sub>, or —(CH<sub>2</sub>)<sub>9</sub>CH<sub>3</sub>; R<sup>2</sup> is —(CH<sub>2</sub>)<sub>9</sub>CH<sub>3</sub>, —(CH<sub>2</sub>)<sub>10</sub>CH<sub>3</sub>, or —(CH<sub>2</sub>)<sub>11</sub>CH<sub>3</sub>;

62. (Withdrawn) The method of claim 60, wherein the compound is:



63. (Withdrawn) The method of claim 59, wherein the herpes virus is *cytomegalovirus*.

64. (Withdrawn) The method of claim 1, wherein the virus is a *togavirus*.

65. (Previously presented) The method of claim 1, wherein the compound is administered orally, by inhalation, intravenously, parenterally, intradermally, subcutaneously or topically.